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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/740,720	12/18/2000	Christopher L. Darling	MSI-681US	4181
22801	7590	09/28/2005	EXAMINER	
LEE & HAYES PLLC 421 W RIVERSIDE AVENUE SUITE 500 SPOKANE, WA 99201			HO, ANDY	
			ART UNIT.	PAPER NUMBER
			2194	
DATE MAILED: 09/28/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/740,720

Applicant(s)

DARLING ET AL.

Examiner

Andy Ho

Art Unit

2194

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-57 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-57 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. In view of the appeal brief filed on 7/13/2005, PROSECUTION IS HEREBY REOPENED. Responsive to Applicant's arguments, new grounds of rejection are set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

2. Claims 1-57 have been examined and are pending in the application.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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3. Claims 1-13, 15, 20-32, 34, 37-43, 46-51 and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gossler U.S Patent No. 5,799,173 in view of Mangipudi U.S Patent No. 6,728,748.

As to claim 1, Gossler teaches a method comprising determining present members (servers, line 42 column 4) of a load-balancing cluster (dynamic workload balancing method provided by the queuing monitor 85 or any other queuing monitor order to employ an optimized number of servers for each service unit to be monitored, lines 40-43 column 4);

monitoring (the queuing monitor 85 monitors and controls the servers for each one of the service units of the service point, line 16-19 column 3) availability of one or more members (the minimum and the maximum number of the servers to be available to execute the processes, lines 4-16 column 4) of the cluster (a plurality of servers, line 59 column 2).

Gossler does not explicitly teach dynamically determining the members, application layer availability, and observed from a client perspective.

Mangipudi teaches (lines 28-65 column 4, Fig. 2) a system of load balancing wherein the application layer of the servers and their availability are being dynamically determined and monitored from a routing host located outside of the cluster. It would have been obvious to apply the teachings of Mangipudi to the system of Gossler because this allows the routing host to direct client requests to the appropriate server as disclosed by Mangipudi (lines 28-65 column 4, Fig. 2).

As to claim 2, Gossler as modified further teaches exocusterly (the queuing monitor 85 is not part of the cluster of service units and servers, lines 11-59 column 3, Figs 2-3) controlling activity state of the members of the cluster (the queuing monitor 85 employs an optimized number of servers for each service unit, lines 37-38 column 4; temporary server will be terminated after finished processing the processes, lines 52-65 column 4; if there are less servers running than the specified minimum number of servers, the queuing monitor 85 re-starts just as many servers to reach this minimum number of servers, lines 16-25 column 5).

As to claim 3, Gossler as modified further teaches exocusterly (the queuing monitor 85 is not part of the cluster of service units and servers, lines 11-59 column 3, Figs 2-3) and selectively deactivating one or more active members of the cluster (temporary servers will be terminated after finished processing the processes, lines 52-65 column 4).

As to claim 4, Gossler as modified further teaches identifying one or more active members of the cluster that are presently overwhelmed (if there are less servers running than the specified minimum number of servers, the queuing monitor 85 re-starts just as many servers to reach this minimum number of servers, lines 16-25 column 5) at the application-layer.

As to claim 5, it is a method claim of claims 3-4. Therefore, it is rejected for the same reasons as claims 3-4 above.

As to claim 6, Gossler as modified further teaches exocusterly (the queuing monitor 85 is not part of the cluster of service units and servers, lines 11-59 column 3,

Figs 2-3) and selectively activating one or more inactive members of the cluster (additional servers being added to the minimum number of active servers, lines 16-25 column 5).

As to claim 7, Gossler as modified further teaches identify one or more inactive members of the cluster that are not presently overwhelmed (additional servers were first inactive and then being active by the queuing monitor 85, lines 16-25 column 5) at the application-layer.

As to claim 8, it is a method claim of claims 6-7. Therefore, it is rejected for the same reasons as claims 6-7 above.

As to claim 9, it is a method claim of claims 3-4 and 6-7. Therefore, it is rejected for the same reasons as claims 3-4 and 6-7 above.

As to claim 10, Gossler as modified further teaches determining a present activity state of members of the cluster (monitoring the current state, lines 26-27 column 4).

As to claim 11, it is a method claim of claim 10. Therefore, it is rejected for the same reasons as claim 10 above. Gossler as modified further teaches tracking and persisting the activity states of the members of the cluster (temporary servers will be terminated after finished processing the processes, lines 52-65 column 4).

As to claim 12, Gossler as modified further teaches the activity states include cluster states (monitoring the current state of the service units containing the servers, lines 26-27 column 4).

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As to claim 13, Gossler as modified further teaches reporting (the queuing monitor 85 provides, line 52 column 4) a present activity state of one or more members of the cluster (the state indication determines whether the respective server will be applied permanently or only temporarily, lines 55—57 column 4).

As to claim 15, Gossler f as modified further teaches reporting a present application layer state of one or more members of the cluster (the minimum number of servers for each service unit corresponds to the number of server processes within the service unit that should be permanently running, lines 4-7 column 4).

As to claim 20, it is a computer readable medium claim of claim 1. Therefore, it is rejected for the same reasons as claim 1 above.

As to claim 21, it is a method claim of claims 1-2. Therefore, it is rejected for the same reasons as claims 1-2 above.

As to claims 22-32 and 34, they are method claims of claims 3-13 and 15, respectively. Therefore, they are rejected for the same reasons as claims 3-13 and 15 above.

As to claim 37, it is a computer readable medium claim of claim 21. Therefore, it is rejected for the same reasons as claim 21 above.

As to claim 38, it is a computer readable medium claim of claims 1-2 and 10. Therefore, it is rejected for the same reasons as claims 1-2 and 10 above.

As to claims 39-43, they are system claims of claims 1-2, 4, 7 and 10, respectively. Therefore, they are rejected for the same reasons as claims 1-2, 4, 7 and 10 above.

As to claims 46-51, they are system claims of claims 1, 3-4, 6-7 and 10, respectively. Therefore, they are rejected for the same reasons as claims 1, 3-4, 6-7 and 10 above.

As to claim 54, it is a system claim of claims 1-2 and 10. Therefore, it is rejected for the same reasons as claims 1-2 and 10 above.

4. Claims 14, 16-19, 33, 35-36, 44-45, 52-53 and 55-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gossler in view of Mangipudi, and further in view of Luzzi U.S Patent No. 6,321,263.

As to claim 14, Gossler as modified does not explicitly teach reporting historical record of the activity states of the server. Luzzi teaches a system of monitoring the performance of a server computer from a client computer (Fig. 2) wherein the historical record of the activity state of the server (data on specific servers, lines 56-57 column 4) being reported (the server records of service being recorded in certain period of time and these records being stored in a central database, lines 6-16 and 43-62 column 5, lines 15-18 column 6). It would have been obvious to apply the teachings of Luzzi to the system of Gossler because these records allow the user to have a better understanding about the system performance.

As to claim 16, Luzzi further teaches reporting historical record of the application layer state (the transaction record information for a generated transaction record includes whether the application program successfully responded to the request and the response time of the application program, lines 10-14 column 6).

As to claim 17, Luzzi further teaches monitoring in one or more different application layer protocols (hypertext transfer protocol, line 63 column 8; transmission control protocol/internet protocol, lines 14 column 25).

As to claim 18, Luzzi further teaches an indicator of availability sent from the server being monitored (the server computer generates a service response indicating the process is being processed or not, lines 31-38 column 5).

As to claim 19, it is a method claim of claim 18. Therefore, it is rejected for the same reasons as claim 18 above.

As to claims 33 and 35-36, they are method claims of claims 14 and 16-17, respectively. Therefore, they are rejected for the same reasons as claims 14 and 16-17 above.

As to claim 44, it is a system claim of claim 11. Therefore, it is rejected for the same reasons as claim 11 above. Luzzi further teaches a database configured to store the activity states (central repository, line 16 column 6).

As to claim 45, Luzzi further teaches the monitor is protocol agnostic (hypertext transfer protocol, line 63 column 8; transmission control protocol/internet protocol, lines 14 column 25).

As to claims 52-53, they are system claims of claims 44-45, respectively. Therefore, they are rejected for the same reasons as claims 44-45 above.

As to claim 55, it is a system claim of claim 44. Therefore, it is rejected for the same reasons as claim 44 above.

As to claim 56, Luzzi further teaches multiple app-monitors (one or more client-based probes in the network, lines 41-42 column 6).

As to claim 57, Luzzi further teaches multiple cluster controls (client-based probes, line 45 column 6).

Response to Arguments

5. Applicant's arguments filed 7/13/2005 have been fully considered but are moot in view of the new ground(s) rejection.

Applicant's arguments presented issues which required the Examiner to further view the previous rejection. The Examiner conducted a further search regarding the issues mentioned in Applicant's response. Therefore, all arguments regarding the cited references of the previous rejection are moot in view of the new grounds of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andy Ho whose telephone number is (571) 272-3762. A voice mail service is also available for this number. The examiner can normally be reached on Monday – Friday, 8:30 am – 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIM) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2100.


Any response to this action should be mailed to:

Commissioner for Patents
P.O Box 1450
Alexandria, VA 22313-1450

Or fax to:

- AFTER-FINAL faxes must be signed and sent to (571) 273 - 8300.
- OFFICAL faxes must be signed and sent to (571) 273 - 8300.
- NON OFFICAL faxes should not be signed, please send to (571) 273 - 3762

A.H
September 23, 2005


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